

Date: Thursday, 9/20/2007 3:26:24 PM  
 User: Kim Johnston

## Process Sheet

SP/17

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: EXTRUSION "I" BEAM TUBE 4"
Job Number	: 34729		
Estimate Number	: 10154		
P.O. Number	: N/A	Part Number	: D25001190
This Issue	: 9/20/2007 S.O. No. : N/A	Drawing Number	: D2500 REV G
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A	Drawing Revision	: G
Previous Run	: 29602	Material	: N/A
Written By	: <u>20-07-09-20</u>	Due Date	: 10/10/2007
Checked & Approved By	: <u>20-07-09-20</u>	Qty:	31 - 80 Um Each
Comment	: Est: G 02.09.05 Added DSK 066 KJ/RF est H 07.07.06 rev G dwg EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description:
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 4645

C 207/09/21

- a) Extrude as per Dwg D2500
- b) Material: 6061-T6 (QQ-A-200/8)
- c) Minimum yield tensile strength = 35 ksi
- d) Minimum ultimate tensile strength = 38 ksi
- e) Minimum elongation = 8%
- f) Order at 190" long
- g) Bon L Canada Inc. tool # 897105
- h) To be packed per DSK 066
- i) Pull test to ASTM standard B221 required.
- j) Material certification is required

(80)

2.0	D25001190P	Ext'n - "I" Beam Tube 4"
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 80.0000 Each(s)  
 EXTRUSION "I" BEAM TUBE 4"

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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31

Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage  
 Ensure material certification is attached

20-07-09-20 7/10/09 50

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Inspect dimensions per Dwg D2500  
 Check Pull test per Dwg D2500 for compliance page attached.

20-07-09-20 7/10/09 (431)

1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) and (2) for arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

2. In the second part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

3. In the third part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

4. In the fourth part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

5. In the fifth part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

6. In the sixth part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

7. In the seventh part of the paper the problem of the existence of solutions of the system (1) and (2) is solved for the case of arbitrary values of the parameters  $\alpha$  and  $\beta$ . It is shown that the system has solutions for all values of  $\alpha$  and  $\beta$  if and only if the condition  $\alpha + \beta > 0$  is satisfied.

Date: Thursday, 9/20/2007 3:26:25 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EXTRUSION 'I' BEAM TUBE 4"

Job Number: 34729

Part Number: D25001190

Job Number:



Seq. #:

Machine Or Operation:

Description :

Check hardness with Webster tester

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

7/10/9 SD 31x

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

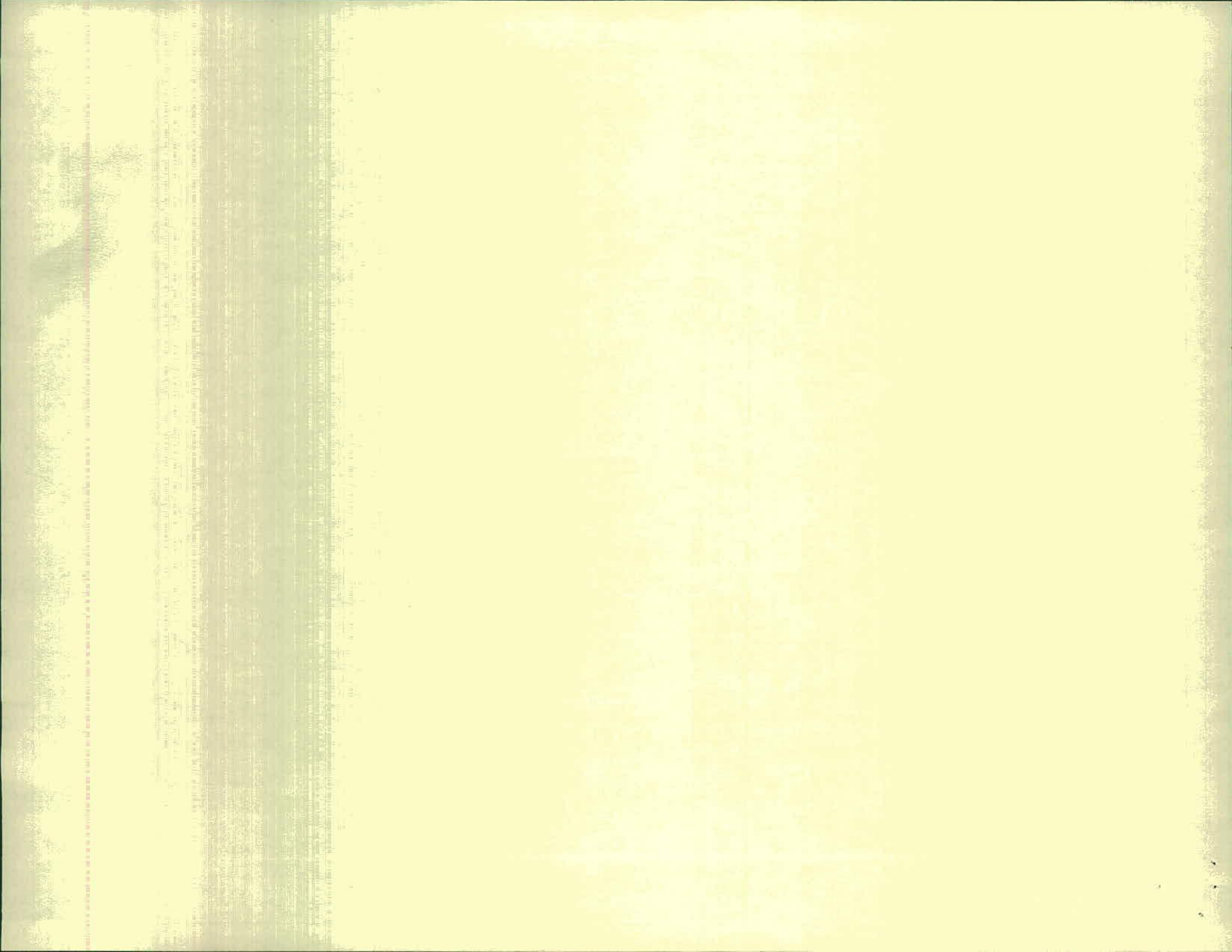
(31)  
7/10/11

Job Completion



W 07-10-10







DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2500	REV. G SHEET 1 OF 3
DATE 07.04.17		TITLE EXTRUSION	SCALE NTS
A	96.03.19	NEW ISSUE	
B	96.03.24	CHANGE INTERNAL WEB	
C	96.04.26	ADD D2500-3 WEB	
D	96.10.07	ADD MATERIAL PROPERTIES	
E	96.10.24	CHANGE MATERIAL TEMPER	
F	97.09.29	CHANGE MAT. TO 6061-T6	
G	07.04.17	ADD NOTES 3,5,6	

RELEASED  
07.06.28 *[Signature]*

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM TENSILE YIELD STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI  
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

2. BREAK ALL SHARP CORNERS 0.010 MAX  
3. ALL DIMENSIONS ARE IN INCHES  
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

5. FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG)  
D2500-1 EXTRUSION MANUFACTURED FROM:

- A) BON L DIE # 897015 -> PREFERRED  
B) CARADON MIDEAST DIE # PAH-28030  
C) CARADON MTL DIE # MH-18868

6. FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG)  
D2500-3 EXTRUSION MANUFACTURED FROM:

- A) CARADON INDALEX DIE # MS-18867

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1870-1871

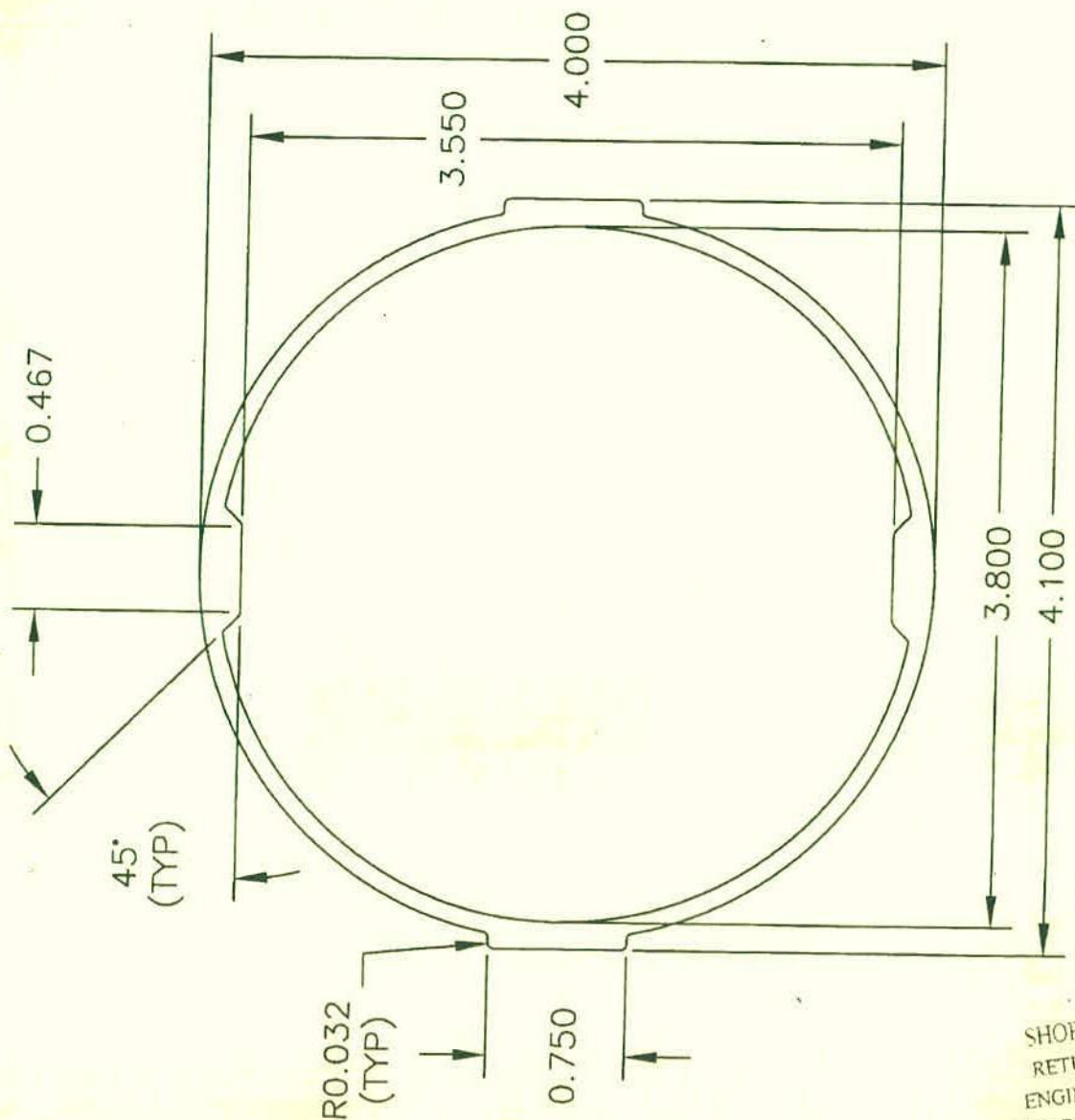
1872-1873

1874-1875



**DART**

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07.06.28-#**D2500-1**

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Continued from page 99

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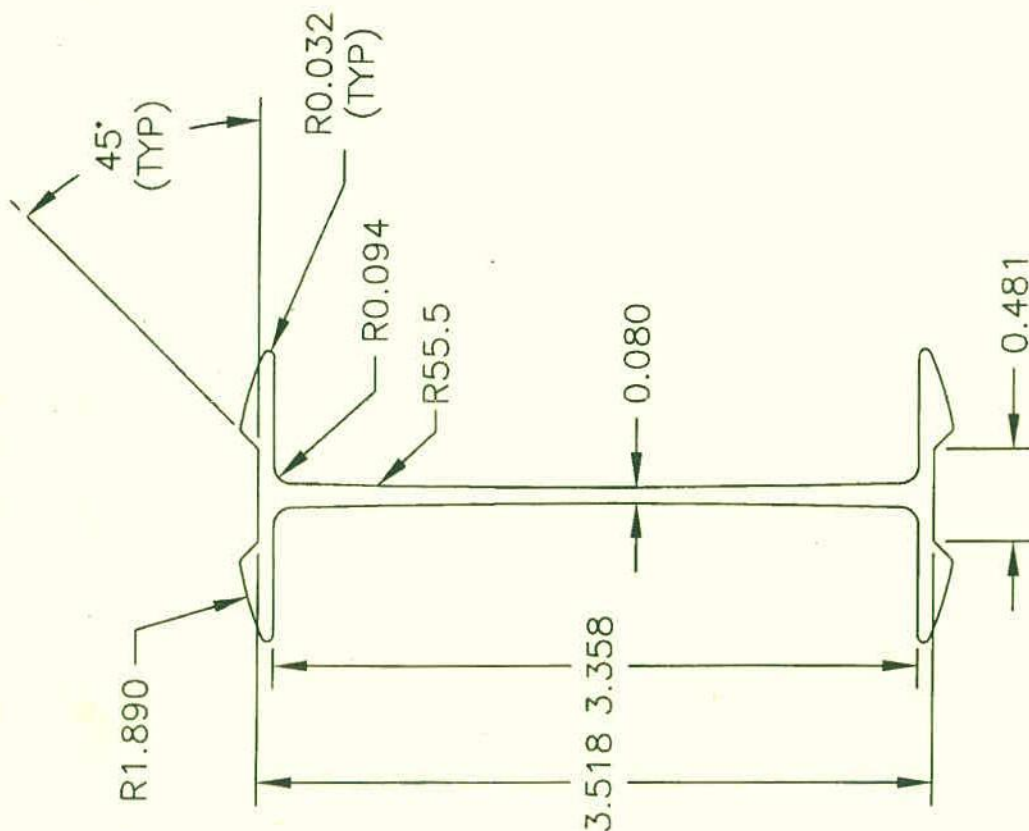
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**DART**

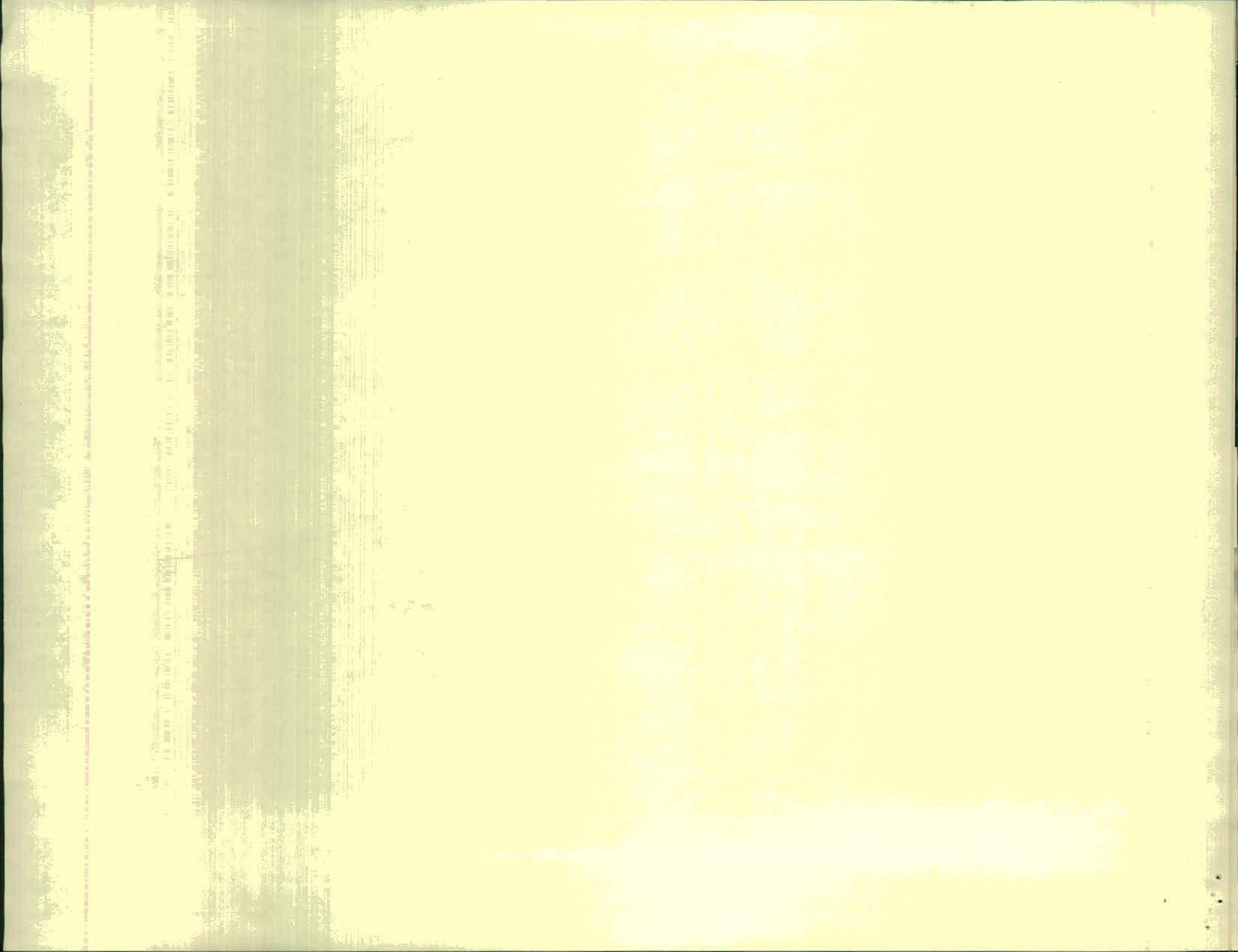
DESIGN <i>[Signature]</i>	DRAWN BY <i>RH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2500	REV. G SHEET 3 OF 3
DATE 07.04.17		TITLE EXTRUSION	SCALE 1:1

**RELEASED**  
07 Dec 28 *[Signature]***D2500-3**

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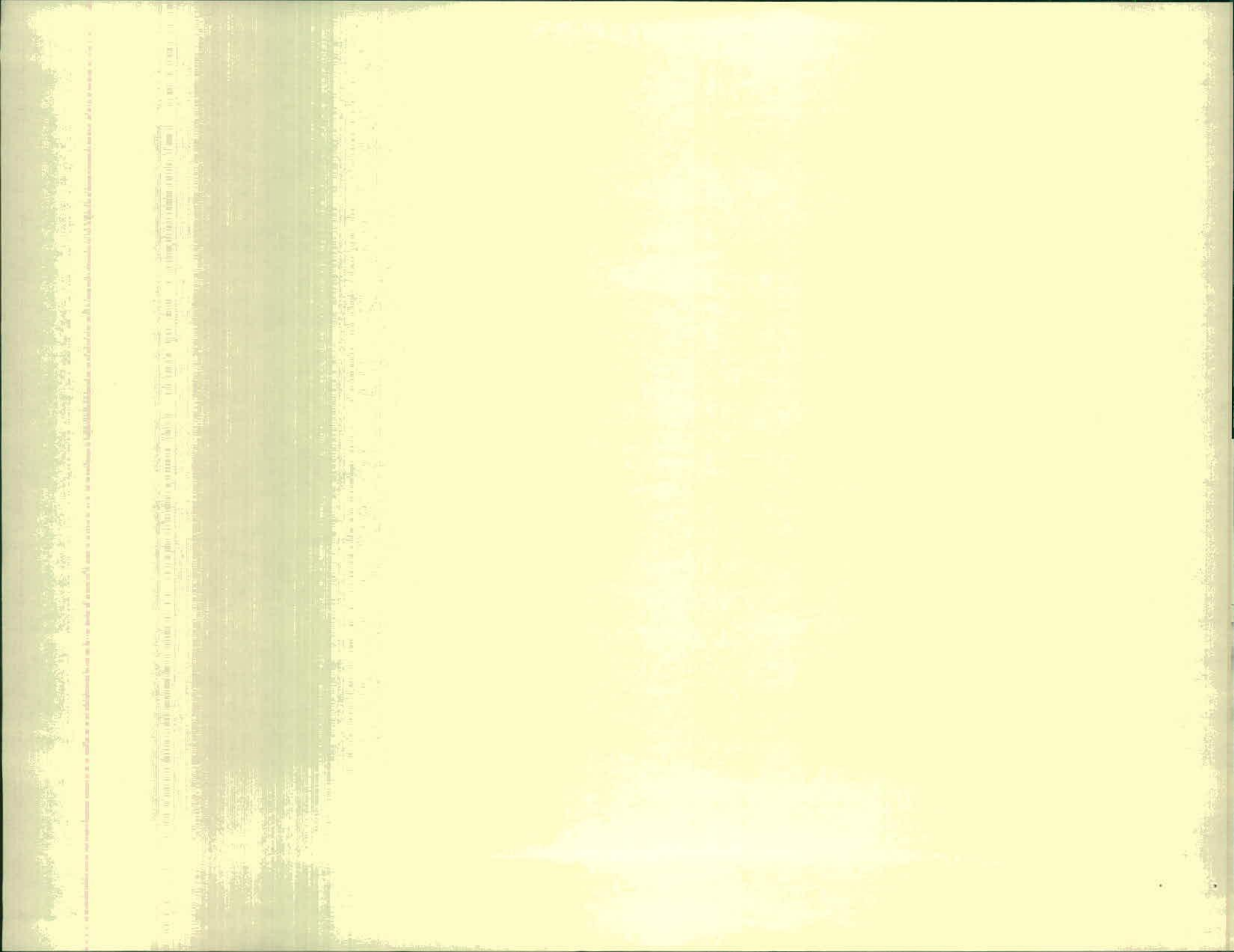
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3) **MEMORANDUM** (THIS BILL OF LADING EXPRESS SHIPPING CONTRACT IS TO BE SIGNED BY SHIPPER AND CARRIER)  
**MEMORANDUM** (CE CONNAISSANCE-CONTRAT D'EXPÉDITION - EXPRESS DOIT ÊTRE SIGNÉ PAR L'EXPÉDITEUR ET LE VOITURIER)







This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf of a book. The paper has a slightly textured appearance with some minor creases and discoloration, characteristic of old paper. The left edge of the page is bound, showing the inner hinge and some stitching. The overall tone is warm and off-white.



**BON L CANADA INC**1850 CLEMENTS ROAD  
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

Cert. Date	Cert. No.	Sales Order	Page
10/07/07	167258	87380	1
Cust. PO	B/I. No.	Lot	Date
4645	00360095	87380011	10/07/07

Sold To	46024	Ship To	46024
DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7		DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7	

Item No	Part No	Item Description	Cust Part
1 001	DAA-897105-2	190" Mill 6061 T6	D2500-1-190
Gross Weight	408 KGS		
Net Qty	388 KG	31 PC	150 M 2 PKG
Specification		Die Desc	
AMS-QQ A-200/8 & ASTM B221-00			

Mechanical Tests:						
Test No.	Tensile MPA / KSI	Yield MPA / KSI	%Elongation	Conductivity	Bend/ Drift HREW	
1	300.9 / 43.7	273.0 / 39.6	9.0	.0	90	

Chemical Limits:									
	SI	FE	CU	MN	MG	CR	ZN	TI	OTHER
MIN:	.40	.00	.15	.00	.80	.04	.00	.00	EA: .05
MAX:	.80	.70	.40	.15	1.20	.35	.25	.15	TOT: .15

This will certify that the material described herein has been inspected and tested in accordance with Bon L Canada's standard sampling and testing procedures or in accordance with the requirements of any specifications forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

Conchita Ko, QA Manager Signed for Bon L Canada

